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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

GIANOLA, JOHN F

ART UNIT PAPER NUMBER

2145

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/934,738

Applicant(s)

MOLNAR, INGO

Examiner

John F. Gianola

Art Unit

2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 9, 11, and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Iyengar et. al. "An Analysis of Web Server Performance" (see attached Notice of References Cited).

3. With regards to Claims 1, 5, and 11, Iyengar et. al. disclose web servers transmitting pages that contain both static and dynamic content (see page 1944, column 2, lines 6-19);. Thus Iyengar et. al. disclose:

Receiving from the client application an application protocol request  
corresponding to a response that can be displayed as a combination of a  
dynamic protocol object and a static protocol object;

Creating at the server the dynamic protocol object;

Sending the dynamic protocol object to the client application;

Retrieving the static protocol object from a cache disposed in an operating  
system kernel; and

Sending the static protocol object to the client application.

Art Unit: 2145

4. With regards to Claims 3, 7, and 12, Iyengar et. al. disclose:

The application protocol request and replay are formatted according to a  
hypertext transmission protocol (http) (see page 1944, column 2, lines 6-  
19).

5. With regards to Claim 9, Iyengar et. al. disclose the web servers as noted above.  
Iyengar et. al. also note a cache for frequently accessed dynamic pages (see page  
1946, column 1, lines 8-12). As noted on page 1944, these dynamic pages often include  
static files, thus Iyengar et. al. disclose:

A cache disposed in an operating system kernel;

Means for receiving from the client application an application protocol request  
corresponding to a response that can be displayed as a combination of a  
dynamic protocol object and a static protocol object;

Means for creating at the server the dynamic protocol object;

Means for sending the dynamic protocol object to the client application;

Means for retrieving a static protocol object; and

Means for sending the at least one static protocol object to the client application.

6. With regards to Claims 13 and 14, Iyengar et. al. disclose the web servers with  
caches as noted above. Inherent in the use of a web server with a cache is:  
wherein the cache can be a protocol object cache.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 2, 4, 6, 8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iyengar et. al. in view of Pai et. al. "IO-Lite: A Unified I/O Buffering and Caching System" (see the attached Notice of References Cited).

10. As noted above, Iyengar et. al. disclose the limitations in Claims 1 and 9. Iyengar et. al., do not disclose a protocol object cache disposed within an operating system kernel. Pai et. al., however, teach using a cache system in a web server, that system being an operating system kernel module (see Pai et. al.: page 47, lines 35-36; page 48, lines 11, 31-35; and page 49, lines 3-10 and lines 27-28). It would have been

obvious to one of ordinary skill in the art at the time of the invention to combine Iyengar and Pai in order to increase the efficiency of the computer system.

### ***Response to Arguments***

11. Applicant's arguments filed February 14, 2005, have been fully considered but they are not persuasive. Applicant argues that "Iyengar does not disclose forming a computer response to a request out of both static and dynamic objects." However, Iyengar discloses "...dynamic pages often include image and other multimedia files....Sites which generate close to 100% of all Web pages dynamically often receive...requests for static files (usually images) included within the dynamic pages." This clearly indicates that the dynamic pages referred by Iyengar contain both dynamic and static objects (i.e. images).

12. Applicant additionally argues that "[t]he cache as disclosed in claimed Applicants application is for protocol objects, not complete web pages." Iyengar notes, on page 1946, lines 8-12, that "...possible to cache frequently access dynamic pages...." As noted above, these dynamic pages often contain static portions, such as images. Applicant further argues "...Iyengar does not disclose forming a complete response to a request out of both static and dynamic objects." As noted above, Iyengar clearly teaches "dynamic pages" which often contain static objects (i.e. images).

13. Applicant also argues that there "...is no mention of the cache residing in an operating system kernel" and that, referring to portions cited by examiner, "...these portions of Pai simply mention both a kernel module, and a file system cache."

However, Pai, as originally cited by the examiner, discloses that "...[t]he IO-Lite file cache module replaces the unified buffer cache module found in 4.4BSD derived systems" (Pai, page 49, lines 27-28). As a portion of the kernel, in the form of a module, the IO-Lite product as described by Pai is clearly residing in an operating system kernel.

### ***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

15. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John F Gianola whose telephone number is (571)272-3848. The examiner can normally be reached on Mon - Fri (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin-Wallace can be reached at (571)272-6159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jfg

  
VALENCIA MARTIN-WALLACE  
SUPERVISORY PATENT EXAMINER